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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,628	08/18/2003	Wei Li	50277-2250	4451

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EXAMINER	
SAEED, USMAAN	

ART UNIT	PAPER NUMBER
2166	

MAIL DATE	DELIVERY MODE
10/31/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Advisory Action Before the Filing of an Appeal Brief	**Application No.** 10/643,628	**Applicant(s)** LI ET AL.	
	Examiner USMAAN SAEED	**Art Unit** 2166	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 10 October 2008 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:
   a) ☐ The period for reply expires _____months from the mailing date of the final rejection.
   b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

   Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
   (b) ☐ They raise the issue of new matter (see NOTE below);
   (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
   The status of the claim(s) is (or will be) as follows:
   Claim(s) allowed: _____.
   Claim(s) objected to: _____.
   Claim(s) rejected: *1-7,9-20 and 22-30*.
   Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
    See Continuation Sheet.
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____
13. ☐ Other: _____.

/Hosain T Alam/
Supervisory Patent Examiner, Art Unit 2166

Continuation of 11. does NOT place the application in condition for allowance because: Applicant argues that Agrawal and Chen do not teach or suggest "a function that counts and return frequent itemsets" "wherein the function identifies said frequent item sets obtained by the statement" and "a cursor as input and wherein the cursor is used by the function to access values from rows that are returned from a select statement."

In response to the preceding arguments examiner respectfully submits that Agrawal teaches "a function that counts and return frequent itemsets" and "wherein the function identifies said frequent item sets obtained by the select statement" as the group-by query preferably includes the steps of counting the number of transactions that contain each item and selecting the items that have a support above a user-specified threshold in determining the frequent itemsets (Agrawal Col 2, Lines 53-56).

Agrawal further teaches he use of table functions described above. It generates all possible k-item combinations of items contained in a transaction, joins them with the candidate table C.sub.k, and counts the support of the itemsets by grouping the join result. Two table functions, Gather and Comb-K, are used. The data table T is scanned in the (tid, item) order and passed to the table function Gather. This table function collects all the items of a transaction (in other words, items of all tuples of T with the same tid) in memory and outputs a record for each transaction. Each such record consists of two attributes, the tid and item-list which is a collection of all its items in a VARCHAR or a BLOB. The output of Gather is passed to another table function Comb-K which returns all k-item combinations formed out of the items of a transaction. A record output by Comb-K has k attributes T_itm.sub.1, . . . , T_itm.sub.k, which can be directly used to probe into the C.sub.k table. An index is constructed on all the items of C.sub.k to make the probe efficient. FIG. 10 illustrates the SQL queries for the GatherJoin approach. This approach is analogous to the K-way Join approach where the k-way self join of T is replaced with the table functions Gather and Comb-K. It is possible to merge these functions together as a single table function GatherComb-K. The Gather function is not required when the data is already in a horizontal format where each tid is followed by a collection of all its items. The pseudo-code below illustrate a typical implementation of GatherJoin approach for counting support.

```
insert into F.sub.k select item.sub.1, . . . , item.sub.k, count(*)
from C.sub.k,
  (select t.sub.2.T_itm.sub.1, . . . , t.sub.2.T_itm.sub.k from T,
  table (Gather(T.tid, T.item)) as t.sub.1,
  table (Comb-K(t.sub.1.tid, t.sub.1.item-list)) as t.sub.2)
  where t.sub.2.T_itm.sub.1 =C.sub.k.item.sub.1 and
  t.sub.2.T_itm.sub.k =C.sub.k.item.sub.k
group by C.sub.k.item.sub.1, . . . , C.sub.k.item.sub.k  (Agrawal COl 10, Lines 13-50).
```

In these lines Examiner interprets single table function GatherComb-K as a function required by the applicant because this function is counting and generating frequent itemsets with 2-item combinations with k=2.

Agrawal does not teaches “a cursor as input and wherein the cursor is used by the function to access values from rows that are returned from a select statement.”

However, Chen teaches “a cursor as input” as control begins at block 200 with the executive 6 receiving an OPEN command for a static cursor scroll. The DECLARE statement for the static scrollable cursor would have been previously processed. The executive 6 then calls (at block 202) the parser compiler 8 and optimizer 10 to parse and optimize the OPEN statement. After the OPEN statement is parsed and optimized, the executive 6 calls (at block 204) the structure generator 12 to construct an INSERT command from the SELECT statement in the previously compiled and executed DECLARE statement to populate the rows of the result table 50 with the qualifying rows of the base table 60 (Chen Paragraph 0051).

“wherein the cursor is used by the function to access values from rows that are returned from a select statement” as the declaration of the cursor would provide a SELECT statement specifying columns of the database table 60 and a WHERE clause including one or more predicates to qualify rows of the database table 60. The data manager 16 would return to the cursor the selected columns in the select list from rows that satisfy the WHERE statement (Chen Paragraph 0032).

Therefore, Chen teahes a cursor which is used to access values from columns and rows of a database specified by the select and where statements.

The combination of Chen's cursor used for accessing values from the rows combined with the Agrawal's function used to count and generate frequent itemsets teaches the argued limitatons as a whole.